

Amendments to the Claims

Please amend claims 1 and 3 as indicated below, and cancel claims 2 and 10-16. Claim 8 was previously cancelled. The claim listing below replaces all previous listings.

Claim 1 (currently amended) A defect free semipermeable composite membrane having a burst pressure of 10 to 500 psi and a pure water permeability of 1-500 gfd/psi comprising:

- (i) a support layer which provides mechanical strength and is selected from the group consisting of extruded porous material, non woven material, woven material, braided material, knitted material, any other rigid or flexible organic or inorganic permeable material;
 - (ii) ~~an ultrasonically coagulated barrier layer which provides selective separation and is selected from the group consisting of at least one hydrophobic polymer as a major component, and at least one hydrophilic polymer as a minor component,~~
 - (iii) a middle layer covalently bonded to the support layer which covers the rough surface and defects of the support layer, said middle layer selected from the group consisting of an epoxy, a polyurethane, a silicone, an adhesive, a monomer, a polymer, and a combination thereof and provides binding between said support and said barrier layers; and
 - (iii) a barrier layer which provides selective separation and coats the middle layer to provide a defect free membrane, said barrier layer consisting of 8-60% of at least one hydrophobic polymer, 1-20% of at least one hydrophilic polymer, 1-20% of an inorganic additive, 1-10% of a monomer, 1-10% of an organic additive, and solvent,
- wherein the middle layer provides binding between the support layer and the barrier layer.

Claim 2 (cancelled).

Claim 3 (currently amended) The membrane of claim 1, wherein said middle layer is ~~further selected from the group consisting of epoxy, polyurethane, silicone, any other~~ an adhesive ~~any other organic or inorganic material which has excellent compatibility between the support and the barrier layers to bond them together.~~

Claim 4 (original) The membrane of claim 1, wherein said composite membrane is in the form of a hollow fiber.

Claim 5 (original) The membrane of claim 1, wherein said composite membrane is in the form of a tube.

Claim 6 (original) The membrane of claim 1, wherein said composite membrane is in the form of a sheet.

Claim 7 (original) The membrane of claim 1, wherein said composite membrane is in the form of a sphere.

Claim 8. Cancelled.

Claim 9. (previously presented) The membrane of claim 1, wherein said membrane has a burst pressure of about 35 to at least 100 psi, and a pure water permeability of about 20 to 150 gfd/psi at 10 psi transmembrane pressure.

Claims 10 - 16. Cancelled.